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October 15, 2002

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***By Electronic Filing***

Marlene H. Dortch, Secretary  
Office of the Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, NW, Room TW-A325  
Washington, DC 20554

**Re: North Dakota Network Co.  
Quarterly TTY Implementation Report  
CC Docket 94-102**

Dear Ms. Dortch:

On behalf of North Dakota Network Co. ("NDNC"), and pursuant to the directive contained in the Commission's *Fourth Report and Order* in CC Docket No. 94-102, FCC 00-436 (*rel.* December 14, 2000), we are submitting its Quarterly Report addressing the requirements for digital wireless systems to provide TTY access to 911 emergency calling systems.

Insofar as NDNC is in the process of acquiring a license to serve the Williston BTA from North Dakota PCS Alliance ("the Alliance"),<sup>1</sup> and since the Alliance has entered into an agreement for switching services with NDNC,<sup>2</sup> the attached report will also serve for the Alliance's station KNLH236.

<sup>1</sup> Application for assignment of authorization, FCC File No. 0000916174, consented to by FCC on September 6, 2002.

<sup>2</sup> See, North Dakota PCS Alliance Reply to Comments of NENA, APCO and NASNA, ¶ 3.

Please refer any inquiries or correspondence in connection with this matter to our offices.

Very truly yours,

A handwritten signature in black ink, appearing to read "John A. Prendergast". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

John A. Prendergast

Kathleen A. Kaercher

Counsel to North Dakota Network Co.

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October 15, 2002

Marlene H. Dortch, Secretary  
Office of the Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Room TW-A325  
Washington, D.C. 20554

**Re: CC Docket No. 94-102**  
**Quarterly TTY Implementation Report**  
**BTA299 D - Minot, ND**  
**BTA299F - Minot, ND**

Dear Ms. Dortch:

North Dakota Network Co. ("NDNC") hereby submits its quarterly report on implementation of Text Telephone Device ("TTY") access to 911 over its digital wireless network, pursuant to the Commission's *Fourth Report and Order* in CC Docket No. 94-102, released December 14, 2000.

NDNC is using Nortel CDMA base stations and switching equipment in its network. Thus, NDNC is dependent on Nortel for the provision and installation of the equipment and software necessary to allow NDNC's digital wireless network to process 911 calls originating from TTY devices. Nortel's sales representative has informed NDNC that its current Nortel DMS-100 Dual Load, Wireless on Wireline switch would not be upgraded or supported further and that NDNC would be required to change from the current switch configuration to a new switch. Apparently, Nortel has made a business decision, based on the market demand for the DMS-100 Dual Load Wireless on Wireline product, that LWW007 (the equivalent to wireless MTX 9) would be the last DMS-100 Dual Load Wireless on Wireline software load. Now, NDNC must transition its infrastructure to separate wireline/wireless switching platforms, and load one of them with the wireless load MTX10, which is the software that will provide the TTY function to NDNC's system. NDNC must buy a new switch, convert its current switch to wireline-only traffic and load the additional software.

NDNC has completed the first of two software upgrades necessary to achieve TTY compliance. The second upgrade cannot be begun until the switch is split and the new switch

installed. However, before it can install the new switch, NDNC must modify its physical plant to accommodate the second switch. NDNC is converting some space that is currently used for storage and adding it to the switch room. This conversion requires that a wall between the two rooms be removed, that an additional halon fire protection system be installed and that the cooling unit be replaced in favor of a larger one that can accommodate the heat generated by the additional switch. This is a major undertaking for NDNC.

Thus far, NDNC has begun and/or completed the following tasks as it endeavors to bring its system into compliance with the Commission's TTY rules:

1. The (building/area) construction and wall destruction is currently underway and should be complete by mid-October. Project is currently 95% complete.
2. Two additional Halon tanks and additional smoke detection equipment have been installed within the new area. Status: 100% complete.
3. The new 800 Amp commercial power breaker panel for the new air conditioners has been installed. Status: 100% complete.
4. Two new 30,000 BTU air conditioners as well the two new cooling units have been installed to replace the two 20,000 BTU units. Status: 100% complete.
5. The new backup generator has been installed to supply backup for a commercial power outage. Status: 100% complete.
6. The new steel super structure and cable rack has been installed to connect the new wireless switch area to the wire line switch area. Status: 100% complete.
7. Two new larger battery strings have been installed to accommodate the additional load of the wireless switch. Status: 100% complete.
8. Additional DC power rectification has been added to accommodate the additional load of the wireless switch. Status: 100% complete.
9. The main DC power distribution panel has been upgraded to accommodate the additional four circuit breakers for the new wireless switch. Status: 100% complete.
10. The new DMS-MTX has been installed and powered up. Status: 100% complete.
11. The wireless Base Stations Controller has been installed and powered up. Status: 100% complete.
12. Testing of the DMS-MTX is in progress. Status: 70% complete, anticipated completion date: October 15, 2002.
13. Testing of the wireless Base Stations Controller is in progress. Status: 20% complete, anticipated completion date: October 15, 2002.
14. Testing of the MTX09 software load and feature set for the DMS-MTX is in progress. Status: 20% complete, anticipated completion date: October 15, 2002.
15. Testing of the NBSS9.0.6 software load and feature set for the Base Station Controller and Base Station Manager is in progress. Status: 10% complete, anticipated completion date: October 15, 2002.

Following are tentative cut-over dates:<sup>1</sup>

1. October 16, 2002 - Split wireless traffic from the DMS-100w to the new DMS-MTX.
2. October 23, 2002 - Add enhanced vocoders to the new Base Station Controller.

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<sup>1</sup> These dates may be subject to slippage, depending on equipment or software failure.

3. November 20, 2002 - Upgrade the DMS-MTX to MTX10 software load.
4. December 11, 2002 - Remove the wireless load from the DMS-100w to make it a DMS-100 and upgrade the DMS-100 to the LEC15 software load.
5. January 8, 2003 - Add the 250 software load to the DMS-100 to make it a DMS-500 and upgrade to LTT15 software load.
6. 2Q 2003 - Add functionality to the switches for Local Number Portability phase II, E911 phase II, TTY/TDD, and the CALEA Punchlist.

In its Fourth Quarterly Report, NDNC noted that, despite its best efforts, it was not able to meet the December 31, 2001 deadline by which carriers operating digital wireless systems should have obtained all software upgrades and equipment necessary to make their systems capable of transmitting 911 calls from TTY devices, as specified in the *Fourth Report and Order*. Therefore, to the extent necessary, it requested a waiver of the December 31, 2001 requirement. NDNC currently anticipates that it will achieve TTY compliance by second quarter 2003.

Sincerely,



John A. Reiser  
Chief Operations Officer  
North Dakota Network Co.

Attachment

**North Dakota Network Co.  
E911 TTY Device Capability Report as of March 31, 2002**

**Development Activities**

1. **Network Infrastructure Software Development** – Our network vendor, Nortel, has indicated that TTY compatible software will be in the MTX 10.0 software load. This software load cannot be installed until the current switch is split and a new switch installed. North Dakota Network Co. (NDNC) is currently undergoing that process as described in its report.
2. **Handset Development and Testing Plans** – Our handset vendors continue to work on the development of a TTY capable handset. We will evaluate these phones when they become available to NDNC.
3. **Beta Testing and Lab Testing** – NDNC is a small rural carrier, and is looking to its equipment manufacturers to conduct full beta and lab testing of network software, handsets and infrastructure equipment. However, NDNC will test the equipment it procures as soon as it is available, to make sure it meets the manufacturer's specifications.
4. **Release and General Availability to Carriers of Network Infrastructure Software** – Anticipate beginning the installation of the second software load upgrade starting in mid-November 2002.
5. **Availability to Carriers of Full Digital Acceptance Test Units** – Unable to determine a firm date at this time with any manufacturer or vendor.
6. **Efforts Toward Achieving Digital Wireless Solution Compatibility with Enhanced TTY** – NDNC continues to pressure its network and handset vendors to provide it with TTY compliant hardware and software. NDNC has made substantial progress toward providing TTY services, as described above.

**Testing and Deployment Activities**

7. **Carrier Coordination of Testing with PSAP** – NDNC will test with the PSAPs in the areas where this service will be deployed. Any coordination with the PSAP will be done on a case-by-case basis, in cooperation with the relevant PSAP personnel.
8. **Carrier Testing Activities, Including Field Testing, Consumer and End-to-End Testing, and Other Necessary Tests** – Each of these will be tested once equipment, software availability, deployment, installation, and turn up are completed.

- 9. Retail Availability of Necessary Consumer Equipment** – NDNC is unable to determine the retail availability of consumer equipment, as none of the handset manufacturers has been able to release a date for general availability. However, as indicated above, at least two major manufacturers have indicated that they are moving toward handset availability in 2002.
  
- 10. Geographic Scope of Network Infrastructure Development** – Since our network has only one switch, as hardware becomes available, it will be deployed across our whole network. Likewise, as TTY compliant handsets become available we will offer them in all retail locations.